Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4   (Cancelled)

5. (Currently Amended) ~~A system~~ Apparatus for performing start-up ~~AGC~~ AFC during initial cell search (ICS) by a user equipment (UE) receiver, where the ICS comprises:

means for Step 1 processing of a given sequence~~, comprising:~~ ;

a first correlator for ~~receiving a first stored sequence of the primary synchronization channel~~ determining a correlation between said given sequence and a stored sequence;

a second correlator for ~~receiving a second stored sequence of the primary synchronization channel~~ determining a correlation between said given sequence and the stored sequence which has been altered in phase;

an error estimator for determining the error associated with the outputs of the first and second correlators;

a filter for selectively integrating the error estimate responsive to an initial or steady state conditions of the cell search process; and

one of a voltage controlled oscillator (VCO) and numeric controlled oscillator (NCO) for adjusting frequency responsive to the integrated error estimate.

6. (Currently Amended) The ~~system~~ apparatus of Claim 5 wherein the ~~given~~ stored sequence is a primary synchronization code (PSC) sequence.

7. (Currently Amended) The ~~system~~ apparatus of Claim 5 wherein the filter is a Proportional Integral (PI) [[PI]] filter.

8. (Original) The ~~system~~ apparatus of Claim 5 wherein said filter is a digital filter having a delay element of $1/(1-z^{-1})$.

Claims 9-16 (Cancelled)

17. (Currently Amended) The ~~method~~ apparatus of ~~claim 1~~ claim 5 wherein the frequency adjustment is numerically controlled.

18. (Currently Amended) The ~~method~~ apparatus of ~~claim 1~~ claim 5 wherein the frequency adjustment is voltage controlled.

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Claims 19-20 (Cancelled)

21. (New) The apparatus of claim 1 wherein the Step 1 processing means comprises:

means for periodically processing a synchronization code channel to provide location updates.

22. (New) The apparatus of claim 5, said error estimator further comprising:

means for providing first, second and third offset estimates; and

means for averaging said first, second and third offset estimates.

23. (New) The apparatus of claim 22 wherein said first, second and third offset estimates are early, punctual and late estimates.

24. (New) The apparatus of claim 22 wherein the means for providing early, punctual and late offset estimates comprise:

means for providing an early estimate which is $-\frac{1}{2}T_C$ relative to the punctual offset and means to provide a late offset which is $+\frac{1}{2}T_C$ relative to the punctual offset wherein T_C is no greater than $\frac{1}{2}$ of a sampling rate.

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25. (New) The apparatus of claim 5 wherein the altered phase is obtained by:

first means for applying a positive phase rotation to said stored sequence; and

second means for applying a negative phase rotation to said stored sequence.

26. (New) The apparatus of claim 25 wherein said first and second means rotate the stored sequence at the same frequency.

27. (New) Apparatus for performing start up automatic frequency control (AFC) during an initial cell search (ICS) by a user equipment receiver comprising:

means for performing Step 1 processing of a received code sequence to provide a location of a synchronization channel;

a sequence locator and splitter responsive to a location output of said Step 1 processing means for producing early, punctual and late frequency offsets based on the received sequence;

first, second and third frequency estimators respectively determining an estimated frequency from said early, punctual and late offsets;

means for averaging the estimated frequencies;

a filter for selectively integrating the error estimate; and